IMPLICIT MAPPING OF TARGET FUNCTIONS TO
PATTERN FUNCTIONS REPRESENTING LIBRARY CELLS

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ABSTRACT

5   Portions of an electrical circuit described as a technology-independent network are automatically mapped by a computer to cells of a library to be used in manufacturing the circuit, using a common set of input signal names for both (the circuit and the cells). A computer readable medium stores models of cells of a library that were constructed using common input names, and also an association between each model and a cell that was used to create the model. 10   In one embodiment, constructing models of the library cells includes reading first data from memory, wherein the first data corresponds to a first cell of the library of cells. The first data includes names representing input signals to the first cell. Thereafter, each name of the first data is replaced with a new name, respectively, thereby creating a first renamed data. A model of the first cell is generated from the first renamed data. In a similar manner, variable names in second 15 data corresponding to a portion of the to-be-fabricated circuit are replaced with the just-described new names, thereby creating a second renamed data. When the second renamed data is used, a previously-generated model is found to represent the circuit portion, due to the common names, thereby to identify the first cell as implementing the circuit portion.

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